

Title (en)

WEARER IDENTIFICATION BASED ON PERSONALIZED ACOUSTIC TRANSFER FUNCTIONS

Title (de)

TRÄGERIDENTIFIZIERUNG AUF BASIS PERSONALISierter AKUSTISCHER ÜBERTRAGUNGSFUNKTIONEN

Title (fr)

IDENTIFICATION DU PORTEUR BASÉE SUR DES FONCTIONS DE TRANSFERT ACOUSTIQUES PERSONNALISÉES

Publication

EP 4004882 A1 20220601 (EN)

Application

EP 20757028 A 20200724

Priority

- US 201916526498 A 20190730
- US 2020043529 W 20200724

Abstract (en)

[origin: WO2021021643A1] A wearable device includes an audio system. In one embodiment, the audio system includes a sensor array that includes a plurality of acoustic sensors. When a user wears the wearable device, the audio system determines an acoustic transfer function for the user based upon detected sounds within a local area surrounding the sensor array. Because the acoustic transfer function is based upon the size, shape, and density of the user's body (e.g., the user's head), different acoustic transfer functions will be determined for different users. The determined acoustic transfer functions are compared with stored acoustic transfer functions of known users in order to authenticate the user of the wearable device.

IPC 8 full level

G07C 9/37 (2020.01); **H04R 1/10** (2006.01); **H04S 7/00** (2006.01)

CPC (source: CN EP KR US)

G06F 21/32 (2013.01 - CN KR US); **H04R 1/1041** (2013.01 - EP KR); **H04R 1/406** (2013.01 - CN KR US); **H04R 3/005** (2013.01 - CN KR US); **H04R 5/027** (2013.01 - CN KR US); **H04S 7/30** (2013.01 - CN US); **H04S 7/304** (2013.01 - KR); **H04W 12/65** (2021.01 - EP KR); **H04R 2430/20** (2013.01 - EP); **H04R 2430/23** (2013.01 - EP KR); **H04R 2499/15** (2013.01 - EP KR); **H04S 7/304** (2013.01 - EP); **H04S 2400/15** (2013.01 - CN US); **H04S 2420/01** (2013.01 - CN EP KR US)

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

WO 2021021643 A1 20210204; CN 114208208 A 20220318; EP 4004882 A1 20220601; JP 2022541991 A 20220929; KR 20220042183 A 20220404; US 11526589 B2 20221213; US 2021034725 A1 20210204

DOCDB simple family (application)

US 2020043529 W 20200724; CN 202080055864 A 20200724; EP 20757028 A 20200724; JP 2021572857 A 20200724; KR 20227006626 A 20200724; US 201916526498 A 20190730